FIG. 1

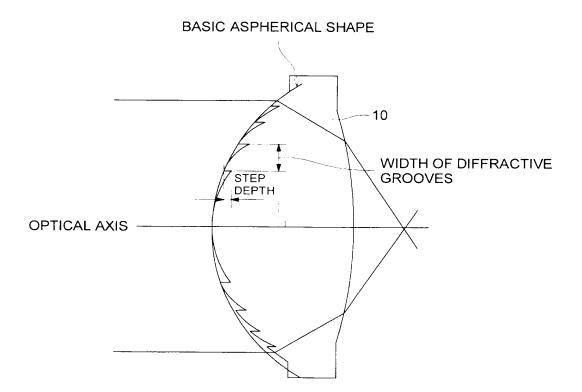


FIG. 2

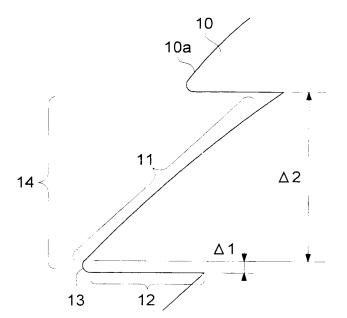


FIG. 3

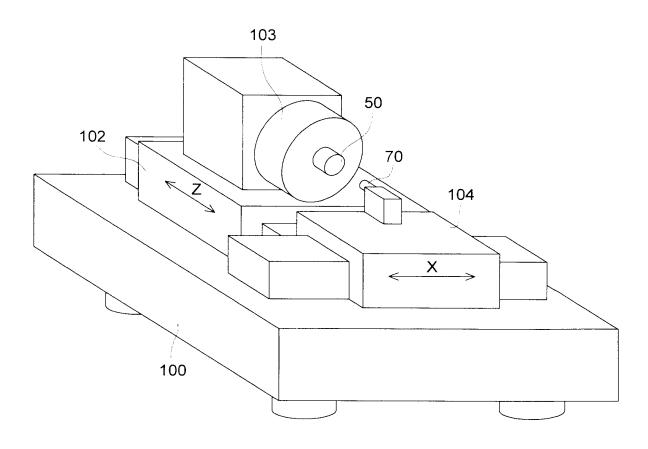


FIG. 4 (a)

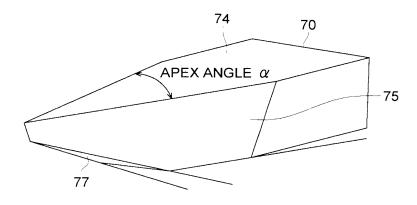


FIG. 4(b)

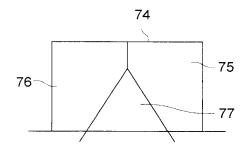


FIG. 4 (c)

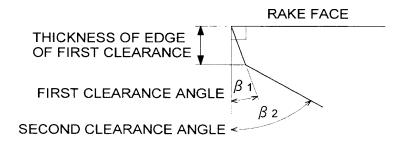
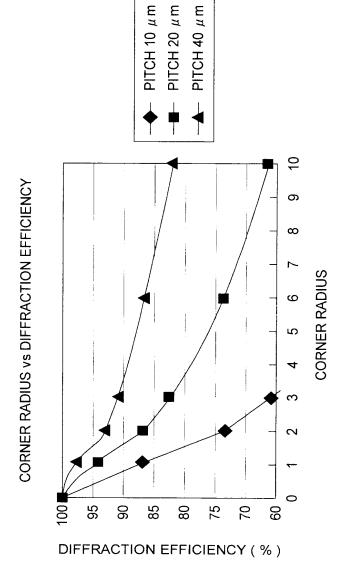


FIG. 5



REMARKS) SCALAR CALCULATION OF DIFFRACTION EFFICIENCY BY SAWTOOTH SHAPE REFRACTIVE INDEX: n = 1.5 USED WAVELENGTH: 650 nm BLAZED WAVELENTGH: 650 nm STEP DEPTH: 1.3 μ m

FIG. 6

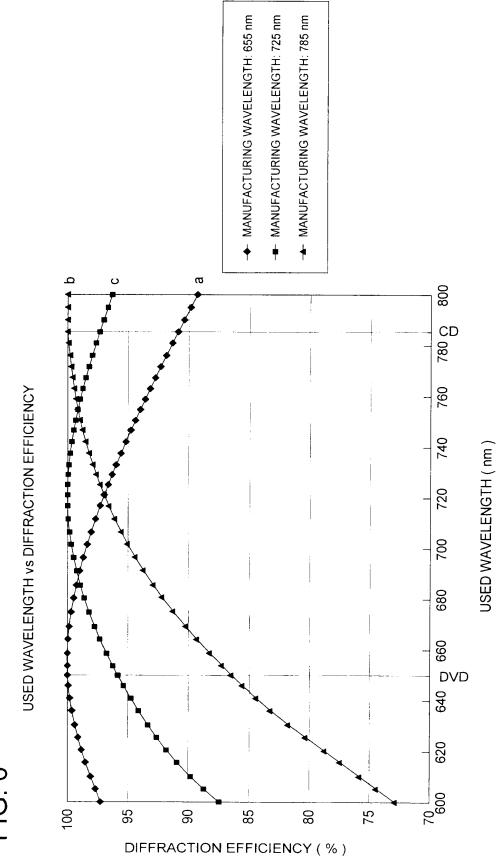


FIG. 7 (a)



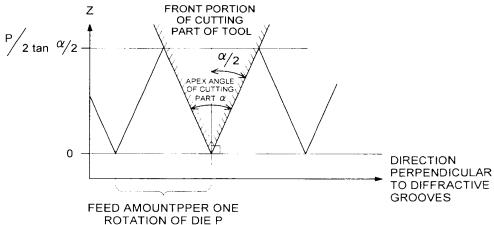


FIG.7(b)

CENTRAL LINE OF CUTTING PART

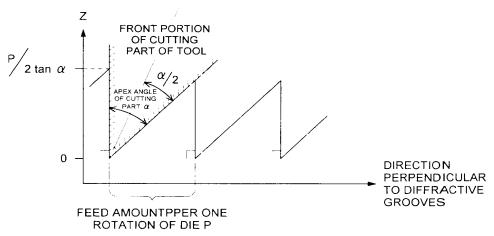


FIG. 7 (c)

(Rz)

		` '
APEX ANGLE OF CUTTING PART	FIG. 7a	FIG. 7b
10°	5.71P	5 67P
30°	1.87P	1 73P
40°	1.37P	1.19P

FIG. 8

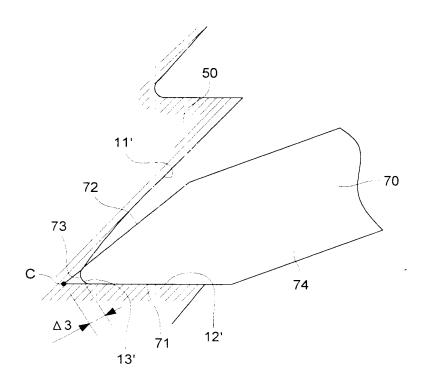


FIG. 9

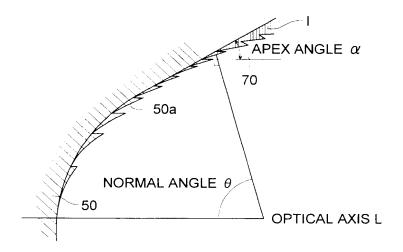


FIG. 10

